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                 custom IPC display formats
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         JAN 28
                 MARPAT searching enhanced
NEWS 6
         JAN 28
                 USGENE now provides USPTO sequence data within 3 days
                 of publication
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NEWS 8
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NEWS 11 FEB 25
                IFIREF reloaded with enhancements
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                 IMSPRODUCT reloaded with enhancements
NEWS 13 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification
                 IFICDB, IFIPAT, and IFIUDB enhanced with new custom
NEWS 14 MAR 31
                 IPC display formats
NEWS 15 MAR 31
                 CAS REGISTRY enhanced with additional experimental
                 spectra
NEWS 16 MAR 31
                 CA/CAplus and CASREACT patent number format for U.S.
                 applications updated
NEWS 17 MAR 31
                 LPCI now available as a replacement to LDPCI
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19
         APR 04
                 STN AnaVist, Version 1, to be discontinued
NEWS 20 APR 15
                 WPIDS, WPINDEX, and WPIX enhanced with new
                 predefined hit display formats
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NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,

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FILE 'HOME' ENTERED AT 18:19:08 ON 21 APR 2008

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:19:21 ON 21 APR 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 20 APR 2008 HIGHEST RN 1015905-22-2 DICTIONARY FILE UPDATES: 20 APR 2008 HIGHEST RN 1015905-22-2

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http://www.cas.org/support/stngen/stndoc/properties.html

=>

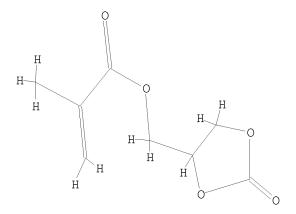
Uploading C:\Program Files\Stnexp\Queries\10580840-final.str

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 18:19:38 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 29 TO ITERATE

100.0% PROCESSED 29 ITERATIONS 16 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 257 TO 903 80 TO PROJECTED ANSWERS: 560

L216 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 18:19:42 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 574 TO ITERATE

100.0% PROCESSED 574 ITERATIONS 287 ANSWERS

SEARCH TIME: 00.00.01

L3 287 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 178.36 178.57

FULL ESTIMATED COST 178.36

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=> s 13

L4181 L3

=> s 14 and glycerol 146435 GLYCEROL

16 L4 AND GLYCEROL

=> s 15 not py > 2004

4518969 PY > 2004

13 L5 NOT PY > 2004 1.6

=> s 16 and zirconium

224986 ZIRCONIUM

0 L6 AND ZIRCONIUM 1.7

=> s 16 and catalyst 798520 CATALYST

L8 2 L6 AND CATALYST

=> d 18 ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:211150 CAPLUS

DOCUMENT NUMBER: 139:7268

TITLE: Synthesis and dielectric constants of polymers with

cyclic carbonate pendant groups

AUTHOR(S): Purdy, Andrew P.; Levien, Elizabeth; Hwang, Ann CORPORATE SOURCE: Chemistry Division, Naval Research Laboratory,

Washington, DC, 20375-5342, USA

SOURCE: Polymer Preprints (American Chemical Society, Division

of Polymer Chemistry) (2003), 44(1), 854-855

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer

Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB Polymers containing pendant 5-membered cyclic carbonate functionalities were prepared and their dielec. consts. were measured as a function of frequency. Glycerol carbonate methacrylate, a known compound, was polymerized in bulk. It had a dielec. constant~6 at 1 kHz which dropped to ~5 at 1 MHz, with an dielec. loss ~ 0.1 at 1 kHz. Copolymers with Me methacrylate had lower dielec. consts., with similar loss factors. A silicone polymer with propoxy-glycerol carbonate pendant groups was also prepared and crosslinked with varying amts. of Jeffamine T-403 or triethylenetetramine. Dielec. consts. >20 at 1 kHz were obtained, but the materials had high dielec. losses, and showed some ionic conductivity that could have come from autoionization of the hydroxyethyl carbamate crosslink moieties.

IT 13818-44-5P, 2-0xo-1,3-dioxolan-4-yl)methyl methacrylate RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(monomer; synthesis and dielec. consts. of polymers with cyclic carbonate pendant groups)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

IT 109013-85-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and dielec. consts. of polymers with cyclic carbonate pendant groups)

RN 109013-85-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:193704 CAPLUS

DOCUMENT NUMBER: 118:193704

TITLE: Thermosetting polyester resin compositions INVENTOR(S): Hashizume, Toyomi; Iwamura, Goro; Oka, Masataka

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04248835	A	19920904	JP 1991-522	19910108
JP 3116962	В2	20001211		
PRIORITY APPLN. INFO.:			JP 1991-522	19910108
GT				

$$X = \begin{array}{c|c} R^1 & R^2 \\ \hline & & \\ O & O \\ \end{array}$$

AB The compns. contain (1) vinyl- or isocyanate-modified polyesters or alkyd resins containing 2-oxo-1,3-dioxolane groups X [R1-R3 = H, C1-4-alkyl], possibly together with CO2H and(or) OH groups, and (2) curing catalysts, and optionally contain (3) compds. containing CO2H, anhydride group, and(or) OH but not simultaneously containing anhydride group and OH and (4) curing agents capable of reaction with OH. Thus, trimethylolpropane 11, neopentyl glycol 381, p-tert-butylbenzoic acid 280, isophthalic acid 138, adipic acid 203, and hexahydrophthalic anhydride 85 parts were copolymd. at 150° for 5 h in the presence of 0.02 part Bu2SnO and maleated at 240° for 8 h with 22 parts maleic anhydride in xylene to give a solution (A); a mixture of 4-(methacryloyloxymethyl)-1,3-dioxolan-2-one 400, Me methacrylate 200, styrene 100, and Bu methacrylate 300 parts was heated with peroxides and solution A at 130° for 8 h to give a cyclocarbonate group-containing vinyl-modified polyester solution B with good storage stability.

A mixture of 1.0 part PhCH2NMe3OH with 100 parts B was coated onto Zn3PO4-treated steel plate (30 $\mu m)$ and heated at 130° for 20 min to give a film with good processability and resistance to water, H2SO4 (5%), and weathering.

IT 13818-44-5DP, graft copolymers with acrylic monomers and

dehydrated castor oil fatty acids and hexanediol and pentaerythritol and phthalic anhydride 147142-87-8P 147142-89-0P

RL: PREP (Preparation)

(preparation of, for coatings with good chemical resistance and processability

and storage stability)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

RN 147142-87-8 CAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with butyl 2-methyl-2-propenoate, 2,2-dimethyl-1,3-propanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2,5-furandione, hexahydro-1,3-isobenzofurandione, hexanedioic acid, methyl 2-methyl-2-propenoate and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate, 4-(1,1-dimethylethyl)benzoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 98-73-7 CMF C11 H14 O2

CM 2

CRN 147142-86-7

CMF (C8 H14 O2 . C8 H10 O5 . C8 H10 O3 . C8 H8 . C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2 . C5 H8 O2 . C4 H2 O3)x

CCI PMS

CM 3

CRN 13818-44-5 CMF C8 H10 O5

CRN 126-30-7 CMF C5 H12 O2

$$\begin{array}{c} \operatorname{Me} & | \\ \operatorname{HO-CH}_2 - \operatorname{C-CH}_2 - \operatorname{OH} \\ | & | \\ \operatorname{Me} \end{array}$$

CM 5

CRN 124-04-9 CMF C6 H10 O4

${\rm HO_2C^-}$ (CH₂)₄- ${\rm CO_2H}$

CM 6

CRN 121-91-5 CMF C8 H6 O4

CM 7

CRN 108-31-6 CMF C4 H2 O3

CM 8

CRN 100-42-5 CMF C8 H8

$H_2C = CH - Ph$

CM S

CRN 97-88-1 CMF C8 H14 O2

CRN 85-42-7 CMF C8 H10 O3

CM 11

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ & || & || \\ \text{Me-} & \text{C--} & \text{C--} & \text{OMe} \end{array}$$

CM 12

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

RN 147142-89-0 CAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with butyl 2-methyl-2-propenoate, 2,2-dimethyl-1,3-propanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2,5-furandione, hexahydro-1,3-isobenzofurandione, hexanedioic acid, methyl 2-methyl-2-propenoate, (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate and 2-propenoic acid, 4-(1,1-dimethylethyl)benzoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 98-73-7 CMF C11 H14 O2

CRN 147142-88-9

CMF (C8 H14 O2 . C8 H10 O5 . C8 H10 O3 . C8 H8 . C8 H6 O4 . C6 H14 O3 . C6 H10 O4 . C5 H12 O2 . C5 H8 O2 . C4 H2 O3 . C3 H4 O2)x

CCI PMS

CM 3

CRN 13818-44-5 CMF C8 H10 O5

CM 4

CRN 126-30-7 CMF C5 H12 O2

$$\begin{array}{c} \operatorname{Me} \\ \mid \\ \operatorname{HO-CH}_2-\operatorname{C-CH}_2-\operatorname{OH} \\ \mid \\ \operatorname{Me} \end{array}$$

CM 5

CRN 124-04-9 CMF C6 H10 O4

 $_{\rm HO_2C^-}$ (CH₂)₄-CO₂H

CM 6

CRN 121-91-5 CMF C8 H6 O4

CRN 108-31-6

CMF C4 H2 O3

CM

CRN 100-42-5

8

CMF C8 H8

$$_{\rm H_2C} = _{\rm CH} - _{\rm Ph}$$

CM 9

CRN 97-88-1

CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 10

CRN 85-42-7

CMF C8 H10 O3

CM 11

CRN 80-62-6

CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

CM12 CRN 79-10-7 CMF C3 H4 O2

CM 13

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

=> s 16 not 18

L9 11 L6 NOT L8

=> d 19 ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):y

L9 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:506351 CAPLUS

DOCUMENT NUMBER: 127:137143

TITLE: Aqueous crosslinkable acrylic polymer coating

composition

INVENTOR(S): Yang, Lucy; Tobias, Michael A.; Ruhoff, Philip J.;

Hung, Robert; Stenson, Paul Valspar Corporation, USA

SOURCE: PCT Int. Appl., 32 pp. CODEN: PIXXD2

CODEN. IIAADZ

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

	PATENT NO.		KIND DATE		APPLICATION NO.			DATE											
	WO	9723	 516			A1	_	1997	0703	,	 WO 1	 996-	 US20	 735		1:	 9961	 220	
		W:	AL,	AM,	ΑT,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	
			CZ,	DE,	DE,	DK,	DK,	EE,	EE,	ES,	FΙ,	FI,	GB,	GE,	HU,	IL,	IS,	JP,	
			KΕ,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	
			MW,	MX,	NO,	NΖ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SK,	ΤJ,	TM,	
			TR,	TT,	UA,	UG,	UZ,	VN,	AM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM		
		RW:	KΕ,	LS,	MW,	SD,	SZ,	UG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	
			ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	
			MR,	ΝE,	SN,	TD,	ΤG												
	AU	9713	533			A		1997	0717		AU 1	997-	1353.	3		1	9961	220	
PRI	ORIT	Y APP	LN.	INFO	.:						US 1	995-	5769	48		A 1	9951	222	
										,	WO 1	996-	US20	735	1	W 1:	9961	220	
	_																		

AB An aqueous crosslinkable coating composition comprises an aqueous dispersion of an

emulsion polymer containing cyclic carbonate groups and an emulsion polymer containing amine (precursor) groups. The coatings are crosslinked by reaction of the cyclic carbonate groups with the amine groups. An amine-containing polymer was prepared by reaction of propylenimine with an acrylic acid-Bu acrylate-Bu methacrylate-glycidyl methacrylate carbonate-methacrylic acid-styrene copolymer.

1T 192937-43-2DP, reaction products with propylenimine
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(aqueous crosslinkable acrylic polymer coating composition)

RN 192937-43-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 100-42-5 CMF C8 H8

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-} \text{C-} \text{CO}_2 \text{H} \end{array}$$

CM 6

CRN 79-10-7 CMF C3 H4 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-C-CH} = \text{CH}_2 \end{array}$$

L9 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:395453 CAPLUS

DOCUMENT NUMBER: 122:315745

TITLE: Modification of reactive oligomers with proteins AUTHOR(S): Otvalko, Zh. A.; Barantsevich, E. N.; Grechanovskii,

V. A.

CORPORATE SOURCE: NIISint. Kauchuka im. S. V. Lebedeva, St. Petersburg,

Russia

SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (1994),

67(8), 1328-34

CODEN: ZPKHAB; ISSN: 0044-4618

PUBLISHER: Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Conditions for the reaction of vegetable proteins with glycidyl-terminated polyether, cyclocarbonate-terminated polyether, and copolymers of 1,3-butadiene glycidyl methacrylate or with 2,3-cyclocarbonate methacrylate were determined The obtained reaction products were characterized.

IT 71868-75-2DP, cyanoisopropyl-terminated, reaction products with modified vegetable proteins

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (modification of glycidyl-terminated polyether, cyclocarbonate-terminated polyether, and copolymers of 1,3-butadiene glycidyl methacrylate or with 2,3-cyclocarbonate methacrylate with vegetable proteins)

RN 71868-75-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester, polymer with 1,3-butadiene (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CRN 106-99-0 CMF C4 H6

 $H_2C = CH - CH = CH_2$

L9 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:410510 CAPLUS

DOCUMENT NUMBER: 119:10510

TITLE: Acid-, scratch-, and weather-resistant curable acrylic

polymer compositions

INVENTOR(S): Takezawa, Shoichiro; Harui, Nobuo; Iwamura, Goro

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04314720 JP 3077233	A B2	19921105 20000814	JP 1991-79819	19910412

PRIORITY APPLN. INFO.: JP 1991-79819 19910412

AB The title compns. contain (a) vinyl polymers containing 1,3-dioxoran-2-one-4-yl and OH groups and (b) compds. containing epoxy and OH groups. Thus, a coating was prepared from 4:3:1:2 Bu methacrylate-2,3-carbonatopropyl methacrylate- β -hydroxyethyl methacrylate-styrene copolymer and 4:3:1 Bu methacrylate-glycidyl methacrylate- β -hydroxyethyl methacrylate-styrene copolymer.

IT 148079-74-7 148099-68-7

RL: USES (Uses)

(coating materials containing, acid-, scratch-, and weather-resistant)

RN 148079-74-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
 O $_{\parallel}$ $_{\parallel}$ $_{\rm Me^-C^-C^-O^-CH_2^-CH_2^-OH}$

CM 3

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-} \text{C--C-Me} \end{array}$$

RN 148099-68-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
 O $^{\rm \parallel}$ $^{\rm \parallel}$ Me-C-C-O-CH2-CH2-OH

CRN 100-42-5 CMF C8 H8

 $_{\rm H2C} = _{\rm CH} - _{\rm Ph}$

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-} & \text{C-C-Me} \end{array}$$

CM 5

CRN 79-41-4 CMF C4 H6 O2

 $\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me--} \text{C---} \text{CO}_2 \text{H} \end{array}$

INVENTOR(S):

L9 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:256690 CAPLUS

DOCUMENT NUMBER: 118:256690

TITLE: Water-thinned thermosetting resin compositions for

chemical-, water-, and weather-resistant coatings Hashizume, Toyomi; Iwamura, Goro; Ooka, Masataka

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04264157	A	19920918	JP 1991-24565	19910219
PRIORITY APPLN. INFO.:			JP 1991-24565	19910219
OTHER SOURCE(S):	MARPAT	118:256690		

GΙ

$$Q = \begin{array}{c|c} R^1 & R^2 \\ \hline & O & O \\ \hline & O & O \\ \end{array}$$

AB The compns. are formed by neutralizing a polyester containing Q (R1-R3 = H, C1-4 alkyl) groups and carboxy groups with a base, then dispersing or dissolving in water. 4-(Methacryloyloxymethyl)-2-oxo-1,3-dioxolane 200, styrene 180, and acrylic acid 20 parts were polymerized in the presence of a polyester from isophthalic acid 148.7, trimethylolpropane 11, neopentyl glycol 217.7, p-tert-butylbenzoic acid 66, adipic acid 65.5, hexahydrophthalic anhydride 138, and maleic anhydride 13.2 parts, and the resulting product was neutralized with Et3N and used for water-thinned coatings.

IT 13818-44-5D, graft polymers with alkyd resins, methacrylic acid,
 Me methacrylate and styrene, triethylamine salts 147966-45-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, water-thinned, chemical- and water- and weather-resistant,
 thermosetting)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

RN 147966-45-8 CAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol and 2-ethyl-2-(hydroxymethyl)-1,3-propanediol 4-(1,1-dimethylethyl)benzoate, ethenylbenzene, formaldehyde, 2,5-furandione, hexahydro-1,3-isobenzofurandione, hexanedioic acid, 2-(2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate, 2-propenoic acid and 1,3,5-triazine-2,4,6-triamine, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8 CMF C6 H15 N

CM 2

CRN 147966-44-7

CMF (C11 H14 O2 . C8 H10 O5 . C8 H10 O3 . C8 H8 . x (C8 H6 O4 . C6 H14 O3 . C5 H12 O2)x . C6 H10 O4 . C4 H2 O3 . C3 H6 N6 . C3 H4 O2 . C H2 O)x CCI PMS

CRN 13818-44-5 CMF C8 H10 O5

CM 4

CRN 124-04-9 CMF C6 H10 O4

 ${
m HO_2C-}$ (CH₂)₄- ${
m CO_2H}$

CM 5

CRN 108-78-1 CMF C3 H6 N6

CM 6

CRN 108-31-6 CMF C4 H2 O3

CM 7

CRN 100-42-5 CMF C8 H8

CM 8

CRN 85-42-7 CMF C8 H10 O3

CM S

CRN 79-10-7 CMF C3 H4 O2

$$\begin{matrix} \text{O} \\ || \\ \text{HO-C-CH} = \text{CH}_2 \end{matrix}$$

CM 10

CRN 50-00-0 CMF C H2 O

$H_2C = 0$

CM 11

CRN 147625-45-4 CMF C11 H14 O2 . x (C8 H6 O4 . C6 H14 O3 . C5 H12 O2)x

CM 12

CRN 98-73-7 CMF C11 H14 O2

CM 13

CRN 41941-17-7

CMF (C8 H6 O4 . C6 H14 O3 . C5 H12 O2)x

CCI PMS

CM 14

CRN 126-30-7 CMF C5 H12 O2

CM 15

CRN 121-91-5 CMF C8 H6 O4

CM 16

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ \mid \\ \text{HO-CH}_2-\text{C-Et} \\ \mid \\ \text{CH}_2-\text{OH} \end{array}$$

L9 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:104991 CAPLUS

DOCUMENT NUMBER: 118:104991

TITLE: Storage-stable cyclocarbonate group-containing vinyl

polymer coatings

INVENTOR(S): Harui, Nobuo; Iwamura, Goro; Takezawa, Shoichiro

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 04209678	A	19920731	JP 1990-400855	19901207
	JP 2990802	В2	19991213		
PRIO	RITY APPLN. INFO.:			JP 1990-400855	19901207
AB	The title coatings,	giving	smooth film	s with good water	and weather
		- 0 0	1 1 1	7 4 7	

AB The title coatings, giving smooth films with good water and weather resistance, contain ≥ 2 2-oxo-1,3-dioxolane-4-yl group-containing vinyl polymers and the dioxolane ring opening catalysts. Thus, a composition containing

 $trimethylbenzylammonium\ hydroxide,\ Bu\ methacrylate\ (I)-2, 3-carbonatopropyl$

methacrylate-Me methacrylate-styrene copolymer and acrylic acid-styrene-I copolymer gave a smooth film with gel content 98%.

IT 145087-58-7 146267-29-0

RL: TEM (Technical or engineered material use); USES (Uses) (coatings, storage-stable, ring-opening crosslinking of, for smooth films)

RN 145087-58-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, methyl 2-methyl-2-propenoate, (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 3

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{n-BuO-C-C-Me} \end{array}$$

CM 4

CRN 80-62-6 CMF C5 H8 O2

CM 5

CRN 79-10-7 CMF C3 H4 O2

RN 146267-29-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, $\alpha-\text{hydro-}\omega-\text{hydroxypoly}[\text{oxy}(1-\text{oxo-}1,6-\text{hexanediyl})]$ ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), 1,3-isobenzofurandione, methyl 2-methyl-2-propenoate and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 54735-63-6

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C6 H14 O3

CCI PMS

CM 2

CRN 13818-44-5 CMF C8 H10 O5

CM 3

CRN 100-42-5 CMF C8 H8

H₂C== CH- Ph

CM 4

CRN 97-88-1 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{n-BuO-C-C-Me} \end{array}$$

CRN 85-44-9 CMF C8 H4 O3

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel \\ \text{Me--} & \text{C---} & \text{OMe} \end{array}$$

L9 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:494511 CAPLUS

DOCUMENT NUMBER: 115:94511

TITLE: Active energy-curable resin compositions with good

pigment dispersibility and adhesion

INVENTOR(S): Ichinose, Eiyu; Motomura, Masatoshi; Ishikawa,

Hidenori

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 03002206	A	19910108	JP 1989-135718	19890531
	JP 2725379	В2	19980311		
	EP 489203	A1	19920610	EP 1990-313121	19901203
	EP 489203	В1	19960911		
	R: DE, FR, GB,	IT, NL			
PRIO	RITY APPLN. INFO.:			JP 1989-135718	19890531

AB The title compns., useful as binders of coatings, adhesives, printing inks, and magnetic recording medium, comprise resins having cyclocarbonate groups and vinyl bonds and optionally organic solvents and/or reactive diluents. Compns. comprising resins having cyclocarbonate groups, vinyl bonds, and urethane bonds and organic solvents and/or reactive diluents are also claimed. Thus, reacting epichlorohydrin with diethanolamine in the presence of Me4NCl for 6 h and treating with NaHCO3 in DMF at 90°

gave N-(glyceryl cyclocarbonate)diethanolamine, 11.0 g of which was treated with 50.1 g adipic acid-1,4-butanediol copolymer and 28.0 g 4,4'-dicyclohexylmethane diisocyanate in the presence of dibutyltin dilaurate at 70° for 6 h, and then stirred with 10 g 2-hydroxypropyl acrylate-TDI (1:1) adduct for 5 h to give a polyurethane acrylate (I). A composition containing I 50, Tipaque R 280 50, PhMe 90, and MEK 90

parts was applied on a PET film and a brass plate, dried at 70° for 1 h, and irradiated by electron beam to form coatings with gloss 92% and good adhesion in both cases.

IT 13818-44-5P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and polymerization of)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

IT 135600-83-8P

RL: PREP (Preparation)

(preparation of, coatings, radiation-cured, with good pigment dispersibility and adhesion)

RN 135600-83-8 CAPLUS

CN Hexanedioic acid, polymer with 1,4-butanediol, 1,6-hexanediol, 2-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]propyl 2-propenoate, 1,1'-methylenebis[4-isocyanatocyclohexane] and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 54554-40-4 CMF C15 H16 N2 O5 CCI IDS

D1-Me

CM 2

CRN 13818-44-5 CMF C8 H10 O5

CRN 5124-30-1 CMF C15 H22 N2 O2

CM 4

CRN 629-11-8 CMF C6 H14 O2

HO-(CH₂)₆-OH

CM 5

CRN 124-04-9 CMF C6 H10 O4

 ${\rm HO_2C-}$ (CH₂)₄- ${\rm CO_2H}$

CM 6

CRN 110-63-4 CMF C4 H10 O2

 $^{\rm HO-}$ (CH₂)₄ $^{-}$ OH

L9 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:99455 CAPLUS

DOCUMENT NUMBER: 112:99455

ORIGINAL REFERENCE NO.: 112:16931a,16934a

TITLE: Esters of cyclic carbonates for use in urethane

coatings

INVENTOR(S): Grahe, Gerwald; Lachowicz, Artur

PATENT ASSIGNEE(S): Dainippon Ink Chemical Industry Co., Japan

SOURCE: Ger. Offen., 15 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
	DE 3804820	A1	19890817	DE 1988-3804820		19880212
	DE 3804820	C2	19900208			
	EP 328150	A2	19890816	EP 1989-102411		19890213
	EP 328150	A3	19900822			
	R: AT, BE, CH,	DE, ES,	, FR, GB, GR,	, IT, LI, LU, NL, SE		
	JP 02000787	A	19900105	JP 1989-33285		19890213
	JP 2827249	B2	19981125			
RIOI	RITY APPLN. INFO.:			DE 1988-3804820	Α	19880212
CHE	R SOURCE(S):	CASREAC	T 112.99455			

OTHER SOURCE(S): CASREACT 112:99455

The title esters are prepared from cyclic carbonates of the polyols HOZC(R2)(OH)C(OH)R3R4 (R2-4 = H, Me, substituted Me, Z = C1-20 hydrocarbylene) and the anhydrides (R1CO)2O (R1 = H or C1-12 hydrocarbyl group, optionally containing ≤ 3 O atoms) at high temps. Thus, heating 4-(hydroxymethyl)-1,3-dioxan-2-one (I) 118, Ac2O 102, and p-MeC6H4SO3H 0.5 g at $100-105^{\circ}$ for 1 h gave 155 g I acetate.

13818-44-5P, 4-(Hydroxymethyl)-1,3-dioxolan-2-one methacrylate ΙT RL: PREP (Preparation) (preparation of)

13818-44-5 CAPLUS RN

2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA CN

ANSWER 8 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:423545 CAPLUS

DOCUMENT NUMBER: 109:23545

ORIGINAL REFERENCE NO.: 109:4041a,4044a

TITLE: Crosslinked polymers bearing carbonate ester groups

for immobilizing biologically active polymers Mauz, Otto; Noetzel, Siegfried; Sauber, Klaus

INVENTOR(S): PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 6 pp. CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3629176	A1	19880317	DE 1986-3629176		19860828
EP 266503	A1	19880511	EP 1987-112389		19870826
EP 266503	B1	19901212			
R: AT, BE, CH,	DE, FR	, GB, IT, LI	, NL, SE		
US 4767620	A	19880830	US 1987-89439		19870826
AT 59051	T	19901215	AT 1987-112388		19870826
JP 63068611	A	19880328	JP 1987-211506		19870827
CA 1330139	С	19940607	CA 1987-545488		19870827
PRIORITY APPLN. INFO.:			DE 1986-3629176	Α	19860828
			EP 1987-112388	Α	19870826

AB The title polymers, with good bonding capacity (e.g. for enzymes), contain 1-99% glycerol carbonate (meth)acrylate or vinyl or allyl ether and 99-1% N,N'-divinylalkyleneurea, and are in the form of spheres with average diameter 10-600 μ and average pore size 5-1000 nm. Stirring glycerol carbonate methacrylate 50, N,N'-divinylethyleneurea 50, cyclohexanol 108, lauryl alc. 12, AIBN 2, Na2HPO4 3.2, poly(vinylpyrrolidone) 2.0, and H2O 200 g at 65° for 7 h gave 75 g polymer beads with particle size distribution 100-200 μ 36.0, 50-100 μ 60.2, and <50 μ 3.8%. Stirring 0.2 g this polymer with 1.2 mL solution of penicillin acylase (220 units/mL) in phosphate buffer (pH 7.6) at 23° for 72 h gave 456 mg polymer with activity (K penicillate, 37°, pH 7.8) 675 units/g solids.

IT 115089-59-3P 115089-60-6P 115089-61-7P

RL: PREP (Preparation)

(immobilizing agents for biol. active materials, manufacture of)

RN 115089-59-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl) methyl ester, polymer with 1,3-diethenyl-2-imidazolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 13811-50-2 CMF C7 H10 N2 O

RN 115089-60-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-diethenyl-2-imidazolidinone and (2-oxo-1,3-dioxolan-4-yl)methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CRN 13811-50-2 CMF C7 H10 N2 O

$$\begin{array}{c} \text{CH} = \text{CH}_2 \\ | \\ \text{N} \\ \text{CH} = \text{CH}_2 \end{array}$$

CM 3

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

RN 115089-61-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester, polymer with 1,3-diethenyl-2-imidazolidinone and ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 13811-50-2 CMF C7 H10 N2 O

$$CH - CH_2$$
 N
 O
 $CH - CH_2$

CRN 108-05-4 CMF C4 H6 O2

 $AcO-CH=CH_2$

L9 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:618639 CAPLUS

DOCUMENT NUMBER: 99:218639

ORIGINAL REFERENCE NO.: 99:33561a,33564a

TITLE: Copolymers and hydrogels: process and articles made

from them

INVENTOR(S): Gallop, Paul M.

PATENT ASSIGNEE(S): Syntex (U.S.A.), Inc., USA

SOURCE: U.S., 9 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4401797	A	19830830	US 1981-265304	19810520
US 4634722	A	19870106	US 1983-527550	19830829
PRIORITY APPLN. INFO.:			US 1981-265304 A	1 19810520
GI				

$$\begin{array}{c} & & \text{Bu} \\ \text{O} & \text{O} \\ \\ \text{CH}_2 = \text{CMeCO}_2\text{CH}_2 \end{array}$$

AB Copolymers having improved machining and water-resistant properties are prepared from a monomer containing on adduct protecting group, particularly an alkyl boronic acid adduct of glyceryl acrylate or methacrylate, an alkyl acrylate or methacrylate and, optionally, a glycidyl acrylate or methacrylate. After machining and shaping, the adduct is removed to give a hydrogel useful as a contact lens material. A polymer was prepared from a butylboronic acid adduct (I) of glyceryl methacrylate and Me methacrylate, the polymer rod obtained was cut into the shape of contact lenses, treated overnight with 10% H2O2 in NaHCO3 buffer and further hydrated in saline solution to form a hydrogel, useful for contact lenses.

IT 13818-44-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

IT 87880-72-6P

RL: THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);

USES (Uses)

(preparation of, for contact lenses)

RN 87880-72-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with

(2-oxo-1,3-dioxolan-4-y1)methyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 13818-44-5 CMF C8 H10 O5

CM 2

CRN 80-62-6 CMF C5 H8 O2

L9 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:111723 CAPLUS

DOCUMENT NUMBER: 55:111723 ORIGINAL REFERENCE NO.: 55:20963f-h

TITLE: Carbonatoalkyl acrylates and methacrylates INVENTOR(S): O'Brien, Joseph L.; Beavers, Ellington M.

PATENT ASSIGNEE(S): Rohm & Haas Co.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2979514 19610411 US 1957-672128 19570716

GB 877243 GB

AB Glycerol carbonate (236 g.), 600 g. Me methacrylate, 8 g.

hydroquinone, and $400\ \text{cc.}$ dry C6H6 was heated at a maximum distillation temperature of

65° and 0.5 g. Na in 10 cc. MeOH added during 10 hrs.; 190 cc.

C6H6-MeOH azeotope was collected at the top of the column. The mixture was cooled to room temperature, filtered, and washed with H2O. The organic layer

was

dried over anhydrous MgSO4, filtered, and stripped. The residue was distilled in 3 portions in the presence of a polymerization inhibitor, N,N'-bis(1,4-naphthoquinon-2-yl)-p-phenylenediamine to yield 60% 2,3-carbonatopropyl methacrylate (I), b0.06 $112-32^{\circ}$. Likewise the following were prepared: 4,5-carbonatopentyl methacrylate, b0.7 $165-8^{\circ}$, n25D 1.4543; 4,5-carbonatohexyl methacrylate, b2.4 $184-8^{\circ}$; 2,3-carbonatopropyl acrylate, yellow oil. To polymerize I in sheet form, a mixture of 120 g. I with 0.03 g. Bz2O2 and 0.06 g. each of common peak suppressant and mold release agent was heated briefly with stirring, poured into a glass mold, and held at 60° until stiffening was observed. Then the mixture was put through a conventional polymerization cycle, $60-110^{\circ}$.

IT 13818-44-5

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

L9 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:40679 CAPLUS

DOCUMENT NUMBER: 55:40679
ORIGINAL REFERENCE NO.: 55:7909f-h

TITLE: Polymerizable esters of acrylic and methacrylic acid,

and polymers thereof

INVENTOR(S): Fang, James C.

PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

US 2967173 19610103 US 1956-573094 19560322

AB The title compds. are prepared from acrylic or methacrylic acid or their lower esters with the cyclic carbonate of an alkanetriol, such as glycerol. Thus, a monomeric ester was prepared by mixing glyceryl carbonate 236, Me methacrylate 150, hydroquinone 3, and NaOMe 25 parts by weight, in a N atmospheric The mixture was refluxed at 100-2° for 4.5 hrs.

MeOH and unreacted monomers were distilled off, first for 2 hrs. at 106° and thereafter at 20 mm. Hg. The residue was dissolved in C6H6 and washed several times with 30% aqueous CaCl2 and 15% aqueous NaOH. yield was 200 parts crude methacrylate ester of glyceryl carbonate. After further purification, a homopolymer of this ester was made by refluxing a

KIND DATE APPLICATION NO. DATE

50% solution of the ester in MeCOEt at 73° for a few min. A white,

insol., brittle polymer is formed. Some copolymers with styrene, Me methacrylate, Me acrylate, acrylonitrile, or butadiene as comonomers were made, either through solution or emulsion polymerization, by sealing the reaction mixture in glass tubes filled with N and tumbling in a H2O bath at 85° for 16 hrs. These polymers are suitable for clear and pigmented coating compns. adhesives and molding or casting resins.

IT 13818-44-5P, Glycerol, 1,2-carbonate, methacrylate

RL: PREP (Preparation)

(preparation of)

RN 13818-44-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester (CA INDEX NAME)

=>
Connection closed by remote host